

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appellants : Manabu Iwamoto, et al.  
Serial No. : 10/543,051  
Filed : July 21, 2001  
For : METHOD AND SYSTEM FOR SUPPLYING INK AND INK  
CONTAINER  
Examiner : Culler, Jill E.  
Art Unit : 2854  
Confirmation No. : 5677

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<p><b><u>CERTIFICATE OF ELECTRONIC FILING</u></b></p> <p>I hereby certify that this correspondence is being transmitted via Electronic Filing Services on August 11, 2008</p> <p>_____ Jennifer A. Hardy (Name of person signing transmittal)</p> <p><i>Jennifer Hardy</i> _____ Signature</p> <p>_____ August 11, 2008 Date of Signature</p>
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**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

In response to the Final Office Action mailed January 11, 2008 and the Notice of Appeal filed June 9, 2008, having a two-month period for filing an Appeal Brief set to expire on August 11, 2008 (August 9, 2008 being a Saturday), Appellants submit this Appeal Brief. Appellants submit herewith an electronic payment in the amount of \$510.00 as payment of the required fee.

### **1. REAL PARTY IN INTEREST**

The real party in interest is Riso Kagaku Corporation, a Japanese corporation with offices at 5-34-7, Shiba, Minato-Ku, Tokyo to which Appellants have assigned all interest in, to and under this application, by virtue of an assignment recorded on July 21, 2005 at reel 017512, frame 0251 of the assignment records of the Patent and Trademark Office.

### **2. RELATED APPEALS AND INTERFERENCES**

Upon information and belief, the undersigned attorney does not believe that there is any appeal or interference that will directly affect, be directly affected by or have a bearing on the Board's decision in the pending appeal.

### **3. STATUS OF THE CLAIMS**

The Application was filed with claims 1-6 on July 21, 2005, and assigned Application Serial No. 10/543,051. The Application claims priority benefits based on PCT Application PCT/JP03/16042, which was filed December 15, 2003, which in turn claims foreign priority benefits under 35 U.S.C. §119 based on Japanese application 2003-16165 (filed on January 24, 2003).

A Preliminary Amendment was filed on July 21, 2005, cancelling claims 1-6 and adding claims 7-14.

In a first Office Action dated June 14, 2007, the Examiner rejected claims 7-14 under 35 U.S.C. §102(b) allegedly being anticipated by U.S. Patent No. 5,699,731 to Hara. Claims 7-14 were objected to because of informalities.

In response to this first Office Action, Appellants filed an Amendment on October 15, 2007 amending claims 7-14 and arguing against the rejections.

The Examiner then issued a Final Office Action dated January 11, 2008, rejecting claims 7, 9, 11, and 12 and allowing claims 8, 10, 13, and 14. Claims 7, 9, 11, and 12 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,699,731 to Hara in view of U.S. Patent No. 4,639,776 to Foerster et al.

In response to this Final Office Action, Appellants filed a Response under 37 CFR § 116 on April 11, 2008 presenting arguments in response to the rejection.

The Examiner issued an Advisory Action dated April 22, 2008, indicating the that the Examiner maintained the rejection of claims 7, 9, 11, and 12.

A Notice of Appeal and Petition for Extension of Time was filed by Appellants on June 9, 2008 appealing the final rejection of these claims. This Appeal Brief is being filed pursuant to this Notice of Appeal.

Accordingly, the status of the claims is summarized as follows:

Claims allowed: 8, 10, 13, and 14

Claims objected to: none

Claims rejected: 7, 9, 11, and 12

The rejected claims 7, 9, 11, and 12 are set forth in the Appendix attached hereto. Appellants are appealing the Final Rejection of claims 7, 9, 11, and 12.

#### **4. STATUS OF THE AMENDMENTS**

All the submitted Amendments have been entered.

## **5. SUMMARY OF THE CLAIMED SUBJECT MATTER**

The citations to Figures and/or Specification locations are provided immediately following the elements of the independent claims, which are summarized below. Such citations, however, are provided merely as examples and are not intended to limit the interpretation of the claims or to evidence or create any estoppel. Support for each of these claims can be found throughout the specification as originally filed.

Claim 7, is directed to ink supply system comprising an ink supply means (Figures 1 and 2, element 30), an ink amount detecting means (Figures 1 and 3, element 40), a time measuring means (Figure 1, element 50), an empty ink container recognizing means (Figures 1 and 2, element 60), an ink supply control means (Figure 1, element 70). The ink container recognizing means (Figures 1 and 2, element 60) reads out numeric information (Figures 4 and 5) from a storage means (Figure 2, element 8). (See also Paragraphs [0014], [0026], [0028], etc., Figures 1 and 2 of the specification). The ink supply means (Figures 1 and 2, element 30) supplies ink to an ink fountain (Figure 1, element 2) where the ink is temporarily stored between a first point in time (Paragraph [0014], line 5) when the ink is discharged from the ink container (Figure 1 and 2, element 10) and a second point in time (Paragraph [0014], line 6) when the ink is supplied to an inner peripheral surface of a printing drum (Figure 1, element 20). (See also Paragraph 14, lines 2-6, lines 21-24, Paragraph 26, lines 1-3, paragraph 27, lines 2-7) The ink amount detecting means (Figures 1 and 3, element 40) outputs supply signals (Paragraph [0014], lines 7-11) depending on the amount of ink in the ink fountain (Figure 1, element 2). (Paragraph [0014], lines 7-13, Paragraph [0026], lines 3-11, and Figures 1 and 3 of the specification). The time measuring means (Figure 1, element 50) measures the elapsed time from the time a signal from the ink amount detecting means (Figures 1 and 3, element 40). (See also Paragraph [0014], lines

13-15, Paragraph [0026], lines 11-14, Paragraph [0033], etc). The empty ink container recognizing means (Figures 1 and 2, element 60) recognizes when the ink container (Figure 1 and 2, element 10) is exhausted when the elapsed time becomes longer than a predetermined inkless time before an ink supply signal is output. (See Paragraph [0014], lines 16-20, Paragraph [0026], lines 14-16, etc., and Figures 1 and 2 of the specification). The ink supply control means (Figure 1, element 70) starts the ink supply means (Figures 1 and 2, element 30) supplying the ink in response to the starting signal (Paragraph [0014], lines 21-22) and stops the ink supply means (Figures 1 and 2, element 30) from supplying the ink in response to the terminating signal (Paragraph [0014], lines 22-24). (See also Paragraph [0014], lines 20-24, Paragraph [0026], lines 19-23, Paragraph [0034], lines 1-13, and Figure 1 of the specification.) The empty ink container recognizing means (Figures 1 and 2, element 60) reads out numeric information (Figures 4 and 5) from a storage means (Figure 2, element 8) which is provided on the ink container (Figure 1 and 2, element 10) to store numeric information (Figures 4 and 5) for setting an inkless time corresponding to the kind of ink in the ink container (Figure 1 and 2, element 10), and sets the inkless time on the basis of the numeric information. (See also Paragraph [0014], lines 24-29, Paragraph [0038], lines 1-6, Paragraph [0040], lines 1-6, etc.).

Claim 9 is directed toward an ink supply system as defined in claim 7 in which the kind of ink represents a viscosity of the ink. (Paragraph [0037], lines 3-19, Paragraph [0038], lines 10-17)

Claim 11 is directed toward an ink container (Figure 1 and 2, element 10) which is used for carrying out an ink supply method. (Paragraphs [0011], [0013], [0014], [0019], [0026], [0029], [0030], [0035], [0037], [0038], [0040] and Figures 4-5). The supply of ink from an ink container (Figure 1 and 2, element 10) to an ink fountain (Figure 1, element 2) is

temporarily stored between a first point in time (Paragraph [0014], line 5) when the ink is discharged from an ink container (Figure 1 and 2, element 10) and a second point in time (Paragraph [0014], line 6) when the ink is supplied to the inner peripheral surface of a printing drum (Figure 1, element 20). (See also Paragraph [0014], lines 2-6, and lines 21-24, Paragraph [0026], lines 1-3, Paragraph [0027], and lines 2-7). The method is started when the amount of ink in the ink fountain becomes smaller than a first threshold value and is terminated when the amount of ink in the ink fountain (Figure 1, element 2) becomes not smaller than a second threshold value after the supply of ink is started. (See Paragraph [0013], lines 6-10, Paragraph [0014], lines 8-13, Paragraph [0026], lines 4-11). The elapsed time from the start of the supply of ink is measured and it is recognized that the ink container (Figure 1 and 2, element 10) is exhausted when the measured elapsed time from the start of the supply of ink becomes longer than a predetermined inkless time before the amount of ink in the ink fountain (Figure 1, element 2) becomes not smaller than the second threshold value after the supply of ink is started. (See Paragraph [0013], lines 10-17, Paragraph [0035], lines 1-9). Numeric information (Figures 4 and 5) is read out from a storage means (Figure 2, element 8) which is provided on the ink container (Figure 1 and 2, element 10) to store a numeric information (Figures 4 and 5) for setting an inkless time corresponding to a kind of ink in the ink container (Figure 1 and 2, element 10), and the inkless time is set on the basis of the numeric information (Figures 4 and 5), comprising a storage means (Figure 2, element 8) which stores the numeric information (Figures 4 and 5) for setting an inkless time corresponding to the kind of ink therein (See Paragraph [0013], lines 18-24, Paragraph [0014], lines 25-29, Paragraph [0019], lines 5-10, Paragraph [0040], lines 1-6).

Claim 12 is directed to an ink container as defined in Claim 11 in which the kind of ink represents the viscosity of the ink. (See Paragraph [0037], lines 3-19, Paragraph [0038], lines 10-17)

## **6. GROUNDS FOR REJECTION TO BE REVIEWED ON APPEAL**

Claims 7, 9, 11, and 12 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,699,731 to Hara (hereinafter, merely “Hara”) in view of U.S. Patent No. 4,639,776 to Foerster et al (hereinafter, merely “Foerster”).

## **7. ARGUMENTS**

Claim 7 recites, *inter alia*, the empty ink container recognizing means (Figures 1 and 2, element 60) reads out numeric information (Figures 4 and 5) from a storage means (Figure 2, element 8) which is provided on the ink container (Figure 1 and 2, element 10) to store numeric information (Figures 4 and 5) for setting an inkless time corresponding to the kind of ink in the ink container, and sets the inkless time on the basis of the numeric information (Figures 4 and 5).

Thus, the invention recited in claim 7 states that, the inkless time can be set directly by using the numeric information (Figures 4 and 5) from the ink container (Figure 1 and 2, element 10). Therefore, the feature recited in claim 7 can set a suitable inkless time when a new kind of ink—for which the ink supply system has no information stored in advance—is employed.

The Office Action concedes that Hara does not teach that the empty-ink-container recognizing means reads out numeric information from a storage means provided on the ink container. The Office Action asserts that Foerster teaches reading out numerical data from a storage means provided on the ink container.

As understood by applicants, Foerster describes displaying “some values” on an image screen device (2). The values are supplied by the data receiver (6). (Foerster, Fig. 1). The

values are defined as density values, setting and position values, and tolerance values, and are further described as nominal and actual values. (Foerster, Col. 2, lines 21-22). The values detected in Foerster are values relating to the qualities of the ink in the ink container.

Foerster does not teach or suggest reading numeric information from storage means on the ink container to set the inkless time.

Similarly, Hara does not teach or suggest detecting numeric information to set the inkless time by reading a time value from a storage means on the ink container and setting the inkless time on the basis of the numeric information. Thus, both Hara and Foerster discuss reading information about the type of ink from the ink container but neither discusses reading a time value from a storage means on the ink container and setting the inkless time on the basis of that numeric information, as recited in claim 7.

Therefore, neither Hara nor Foerster teach or suggest storing numeric information for setting the inkless time on a storage means provided on the ink container, the empty ink container recognizing means reading out numeric information from the storage means and setting the inkless time on the basis of the numeric information, as recited in claim 7.

Therefore, it is not possible to achieve the invention of claim 7 by combining the teachings of Hara and Foerster. Therefore, the invention of claim 7 is patentable over Hara and Foerster.

Claim 9 recites, *inter alia*, the ink supply system as defined in claim 7 in which the kind of ink represents the viscosity of the ink. Therefore, claim 9 is patentable for substantially the same reasons that claim 7 is patentable, as discussed above

Claim 11 recites, *inter alia*, numeric information (Figures 4 and 5) is read out from a storage means (Figure 2, element 8) which is provided on the ink container (Figure 1 and 2,



element 10) to store a numeric information for setting an inkless time corresponding to a kind of ink in the ink container, and the inkless time is set on the basis of the numeric information (Figures 4 and 5) comprising a storage means (Figure 2, element 8) which stores the numeric information (Figures 4 and 5) for setting an inkless time corresponding to the kind of ink therein. Therefore, claim 11 is patentable for substantially the same reasons that claim 7 is patentable, as discussed above.

Claim 12 recites, *inter alia*, the ink container as defined in Claim 11 in which the kind of ink represents the viscosity of the ink. Therefore, claim 12 is patentable for substantially the same reasons that claim 11 is patentable, as discussed above.

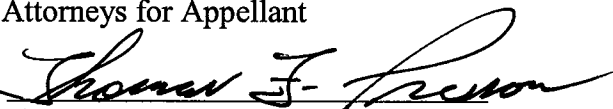
### **CONCLUSION**

For the reasons discussed above, claims 7, 9, 11, and 12 are patentable. It is, therefore, respectfully submitted that the Examiner erred in rejecting claims 7, 9, 11, and 12, and Appellant requests a reversal of these rejections by this Board. As a result, the allowance of this application is respectfully requested.

The Commissioner is hereby authorized to charge any additionally required fee, or to credit any overpayment in such fees, to Deposit Account No. 50-0320.

Respectfully submitted,

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**APPENDIX I**

**CLAIMS ON APPEAL**

1-6. (Canceled)

7. (Previously Presented) An ink supply system, comprising:

an ink supply means which supplies ink in an ink container to an ink fountain where the ink is temporarily stored between a first point in time when the ink is discharged from the ink container and a second point in time when the ink is supplied to an inner peripheral surface of a printing drum;

an ink amount detecting means which outputs an ink supply starting signal when the amount of ink in the ink fountain supplied by the ink supply means becomes smaller than a predetermined first threshold value and an ink supply terminating signal when the amount of ink in the ink fountain becomes not smaller than a predetermined second threshold value;

a time measuring means which measures an elapsed time from the time the ink supply starting signal is output from the ink amount detecting means;

an empty ink container recognizing means which recognizes that the ink container is exhausted when the elapsed time measured by the time measuring means becomes longer than a predetermined inkless time before the ink supply terminating signal is output; and

an ink supply control means which starts the ink supply means supplying the ink in response to the ink supply starting signal and stops the ink supply means from supplying the ink in response to the ink supply terminating signal,

wherein the improvement comprises that the empty ink container recognizing means reads out numeric information from a storage means which is provided on the ink

container to store numeric information for setting an inkless time corresponding to the kind of ink in the ink container, and sets the inkless time on the basis of the numeric information.

8. (Previously Presented) An ink supply system, comprising:

an ink supply means which supplies ink in an ink container to an ink fountain where the ink is temporarily stored between a first point in time when the ink is discharged from an ink container and a second point in time when the ink is supplied to an inner peripheral surface of a printing drum,

an ink amount detecting means which outputs an ink supply starting signal when the amount of ink in the ink fountain supplied by the ink supply means becomes smaller than a predetermined first threshold value and an ink supply terminating signal when the amount of ink in the ink fountain becomes not smaller than a predetermined second threshold value,

a time measuring means which measures the elapsed time from the time the ink supply starting signal is output from the ink amount detecting means,

an empty ink container recognizing means which recognizes that the ink container is exhausted when the elapsed time measured by the time measuring means becomes longer than a predetermined inkless time before the ink supply terminating signal is output, and

an ink supply control means which starts the ink supply means supplying the ink in response to the ink supply starting signal and stops the ink supply means from supplying the ink in response to the ink supply terminating signal,

wherein the improvement comprises that the empty ink container recognizing means reads out a parameter from a storage means which is provided on the ink container to store a parameter representing an inkless time corresponding to the kind of ink in the ink container, and sets the inkless time on the basis of the parameter, and

wherein the ink supply system further comprises a ceasing time measuring means which measures a ceasing time from interruption of the action of the printing drum and resumption of the same,

wherein the parameter stored in the storage means represents an inkless time corresponding to the ceasing time and the kind of ink in the ink container, and

the empty ink container recognizing means sets the inkless time on the basis of the parameter.

9. (Previously Presented) An ink supply system as defined in claim 7 in which the kind of ink represents the viscosity of the ink.

10. (Previously Presented) An ink supply system as defined in claim 8 in which the kind of ink represents the viscosity of the ink.

11. (Previously Presented) An ink container which is used for carrying out an ink supply method where supply of ink from an ink container to an ink fountain where the ink is temporarily stored between a first point in time when the ink is discharged from an ink container and a second point in time when the ink is supplied to the inner peripheral surface of a printing drum is started when the amount of ink in the ink fountain becomes smaller than a first threshold value and is terminated when the amount of ink in the ink fountain becomes not smaller than a second threshold value after the supply of ink is started, the elapsed time from the start of the supply of ink is measured, it is recognized that the ink container is exhausted when the measured elapsed time from the start of the supply of ink becomes longer than a predetermined inkless

time before the amount of ink in the ink fountain becomes not smaller than the second threshold value after the supply of ink is started, a numeric information is read out from a storage means which is provided on the ink container to store a numeric information for setting an inkless time corresponding to the kind of ink in the ink container, and the inkless time is set on the basis of the numeric information, comprising a storage means which stores the numeric information for setting an inkless time corresponding to the kind of ink therein.

12. (Previously Presented) An ink container as defined in Claim 11 in which the kind of ink represents the viscosity of the ink.

13. (Previously Presented) An ink container which is used for carrying out an ink supply method where supply of ink from an ink container to an ink fountain where the ink is temporarily stored between a first point in time when the ink is discharged from an ink container and a second point in time when the ink is supplied to the inner peripheral surface of a printing drum is started when the amount of ink in the ink fountain becomes smaller than a first threshold value and is terminated when the amount of ink in the ink fountain becomes not smaller than a second threshold value after the supply of ink is started, the elapsed time from the start of the supply of ink is measured, it is recognized that the ink container is exhausted when the measured elapsed time from the start of the supply of ink becomes longer than a predetermined inkless time before the amount of ink in the ink fountain becomes not smaller than the second threshold value after the supply of ink is started, a ceasing time from interruption of printing to resumption of the printing is measured, a parameter corresponding to the measured ceasing time is read out from a storage means which is provided on the ink container to store a parameter representing an

inkless time corresponding to the kind of ink in the ink container and the ceasing time, and the inkless time is set on the basis of the parameter, comprising a storage means which stores a parameter representing an inkless time corresponding to the ceasing time and the kind of ink in the ink container.

14. (Previously Presented) An ink container as defined in Claim 13 in which the kind of ink represents the viscosity of the ink.

**APPENDIX II**

**EVIDENCE**

None

**APPENDIX III**  
**RELATED PROCEEDINGS**

None